Subject: Re: Multi-dimensions without for loop ?
Posted by Andrea Pitacco on Thu, 25 Mar 2004 14:22:12 GMT
View Forum Message <> Reply to Message

On Thu, 25 Mar 2004 11:47:31 +0100, Emmanuel Christophe
<melaneum555@yahoo.fr> wrote:

> Hi,
>
> I'm trying to optimize some IDL code, removing for loops.
>
> I'm using the mean function to get the average of each line (this is for
> the example, could be another function). From a 2 dimensional array, I
> want to remove the mean of each column.
>
> Here is a sample using a loop:
> ---
> for j=0,size-1 do begin
> vect=data[j,*]
> datac[j,*]=vect-mean(vect)
> endfor
> ---
>
> How to do it in one instruction: if i'm using something like
> 'mean(data)', i'll get the average for the whole array, and not line by
> line.

Hi Emmanuel,
I have not understood clearly if you like to have the column mean
being removed from the data column, or the row (line?) mean removed
from the data row. 'Seems more likely the first. Anyway:

In the first case you may want to try:

```
datac = data - Total(data,2) / (Size(data))[2] #
Replicate(1D,(Size(data))[2])
```

In the second:

```
datac = data - Total(data,1) / (Size(data))[1] ##
Replicate(1D,(Size(data))[1])
```

Regards, Andrea

Andrea Pitacco
University of Padova, Italy